STATEMENT OF WORK
FOR ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL SITE EVALUATION

UPRR Houston Wood Preserving Works Site
Removal Site Evaluation
Harris County, Texas

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INTRODUCTION

1.1 Purpose

This Statement of Work ("SOW") sets forth the procedures and requirements for conducting a Removal Site Evaluation ("RSE") for the Union Pacific Railroad Company Houston Wood Preserving Works site and neighboring off site areas to investigate actual or threatened releases of hazardous substances. This SOW specifies actions required to be completed by Union Pacific Railroad Company ("Respondent") pursuant to the Administrative Settlement Agreement and Order on Consent ("AOC"), CERCLA Docket No. 06-02-23, entered into voluntarily with the United States Environmental Protection Agency ("EPA"). All terms used in this SOW shall be interpreted in a manner consistent with the definitions provided in the AOC. In the event of any conflict between this SOW and the AOC, the AOC shall control.

1.2 Site Description and SOW Objectives

The UPRR Houston Wood Preserving Works Site ("Site') is located at 4910 Liberty Road, Houston, Harris County, Texas (Figure 1). The Site is a former wood preserving facility where creosoting operations began in 1911 and operated until 1984 when operations ceased, and all on-site building were dismantled in the early 1990s. The Site, as defined in the AOC, includes the former Houston Wood Preserving Works property and the Englewood Intermodal Yard south of the former Houston Wood Preserving Works.

The residential area surrounding the Site is the historically minority Greater Fifth Ward, while the Denver Harbor neighborhood lies to the east, and the Kashmere Gardens neighborhood is north of the Site. The neighborhood around the Site ranks above the 80th percentile for all 11 environmental justice (EJ) indices in EJSCREEN, EPA's environmental justice screening and mapping tool available at https://ejscreen.epa.gov/mapper/, as compared to the United States, and it is at or above the 95th percentile for diesel particulate matter, Superfund site proximity, and Risk Management Plan proximity. These same communities are almost entirely populated by people of color. Sixty-five percent of households in these communities are classified as low-income (earn less than twice the federal poverty level), which is almost double the national average.

This SOW includes the following major work activities:

A. Conduct onsite and offsite soil sampling for the primary Potential Contaminants of Concern ("PCOC") identified in Section 2.2
B. Perform: (1) soil gas sampling and potentially perform sub slab or crawl space sampling, and (2) utility conduit corridor sampling and assessment as part of a vapor intrusion investigation in the residential area north of the Site that overlays the creosote/DNAPL contaminated plume in the groundwater.
C. Conduct an evaluation of the offsite storm sewer system impacts and connections to onsite storm sewers.
D. Create a shared analytical database for use by stakeholders identified by EPA.
E. Develop a proposal to support EPA's Community Involvement Plan.
F. Conduct risk evaluation.

Samples collected by the Respondent will be used to quantitatively determine the concentration of contaminants on properties located on and off Site.

2 GENERAL REQUIREMENTS

The RSE and associated deliverables required under this SOW shall be consistent with the National Contingency Plan ("NCP") 40 CFR 300.415(b)(4)(i) (EE/CA), the *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA* (U.S. EPA Office of Solid Waste and Emergency Response (OSWER) 9360.0-32, August 1993), all other guidance used by EPA in general or specific for conducting a RSE (Attachment 2), and the requirements of this SOW. In conducting the RSE, EPA expects the Respondent to propose the most appropriate procedures and methodologies using accepted engineering practices and controls.

2.1 Priority Media

Priority media at the Site are soil and soil gas. Sub-slab and/or crawl space soil gas may also be assessed if deemed necessary based on RSE sampling results.

2.2 Potential Contaminants of Concern

The primary Potential Contaminants of Concern ("PCOC") for soils are the analytes identified in EPA Methods 8260 and 8270 associated with wood preserving and polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans. The analysis for these contaminants shall include the actual concentration of each PCOC and toxicity equivalent factor for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. The suite of specific PCOCs and sampling locations for soils will be identified in the RSE work plan, which will be publicly available after approval.

Compound	TEF
Polychlorinated dibenzo-*p*-dioxins (*PCDDs*)	
2,3,7,8-TCDD	1
1,2,3,7,8-PeCDD	1
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.0003
Polychlorinated dibenzofurans (*PCDFs*)	
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.03
2,3,4,7,8-PeCDF	0.3
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.0003

The primary PCOCs for soil gas (and sub slab or crawl space soil gas) are volatile organic compounds (VOCs) associated with wood preserving. Specific analyte lists are identified in EPA

Methods 8260b, TO 15 and TO 17.

2.3 Communication

A summary of the major deliverables and schedule for submittals is in Attachment 1. This summary and schedule can be used as the basis for the Respondent's proposed deliverables and schedules included in the work plan.

A list of primary guidance, and reference material is attached (Attachment 2). In all cases, the Respondent shall use the most recently issued guidance.

Respondent shall communicate at least weekly with the EPA. Weekly communications can include face-to-face meetings or conference calls. Respondent shall document all decisions that are made in meetings and conversations with EPA via the weekly and monthly progress reports. EPA will provide oversight of Respondent activities throughout the RSE. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA will review deliverables to assess the likelihood that the RSE will achieve its goals and that its performance and operations requirements have been met.

Respondent shall direct all deliverables to the U.S. EPA Primary Contact listed below. All deliverables must be submitted by the deadlines specified in this SOW, the EPA-approved RSE Work Plan, or as otherwise agreed by EPA, as applicable, in the form specified by the U.S. EPA Primary Contact.

2.4 U.S. EPA Contacts

The primary contact for this RSE is:
Casey Luckett Snyder, EPA Remedial Project Manager ("RPM")
(214) 665-7393
luckett.casey@epa.gov

Mail should be addressed to:
US EPA Region 6
Atten: Casey Luckett Snyder (SED-RL)
1201 Elm Street, Suite 500
Dallas, Texas 75270

The secondary contact is:
Idrissa Ouedraogo, EPA Federal On-Scene Coordinator ("FOSC")
(281) 983-2146
ouedraogo.idrissa@epa.gov.

2.5 Record Keeping Requirements

The Respondent shall maintain all technical records for the RSE. At the completion of the work, submit an official record of the RSE in an electronic form to the EPA. Electronic data shall be provided as described in the Data Management Plan (Section 3.2). Maps should be provided as

ArcGIS shape files, map packages or file geodatabases.

3 REMOVAL SITE EVALUATION WORK PLANNING

3.1 RSE Work Plan

The Respondent shall prepare and submit a RSE work plan that includes a detailed description of study objectives, implementation activities, performance monitoring, and overall management strategy for the RSE. The Respondent shall:

- Contact the EPA RPM within five calendar days after the Effective Date to schedule the scoping meeting or work plan development conference call to be conducted between EPA and the Respondent. The EPA RPM will be available to meet with the Respondent after the initial scoping meeting to discuss and clarify any issues the Respondent may have regarding this project.

- Prepare and submit a draft RSE Work Plan within 30 calendar days from the Effective Date of the AOC. The RSE Work Plan shall include a detailed description of the objectives and technical approach for RSE activities and plans for implementing all RSE activities identified in this SOW. Specify the necessary procedures, inspections, deliverables, key personnel, and schedules. Include a comprehensive implementation management schedule for completion of each major activity and submittal.

3.2 Site-Specific Plans

The Respondent shall prepare, update, and/or maintain, as necessary, site-specific plans for RSE implementation. Incorporate the plans and procedures received from any subcontractor(s) into the overall site plans. Should the Respondent fail to meet the required standards in accordance with the appropriate legal, regulatory, and/or EPA guidance, EPA will provide review comments and the Respondent will revise site-specific plans accordingly. Site-specific plans include the following:

- Field Sampling Plan ("FSP") is required by 40 CFR 300.415(b)(4)(ii) for all sites where environmental samples are collected. The FSP is composed of two elements: (1) the FSP which defines a Conceptual Site Model (CSM) for contaminate fate and transport, along with applicable field sampling and survey designs that specify the number, type, locations and methodologies for collection of field measurements and soil sampling data; (2) The quality assurance project plan ("QAPP") which describes data quality objectives ("DQOs") and plans for obtaining the appropriate type(s) of data and data of sufficient, quantity and quality to meet the DQOs. The FSP may set forth a phased approach to expedite FI activities where practical and EPA-approved.

- Site-specific Health and Safety Plan ("HASP") that specifies employee training, protective equipment, standard operating procedures, and an emergency response plan in accordance with 29 CFR 1910.120(l)(1) and (l)(2).

- Data Management Plan shall present a framework for the generation, validation, and distribution of the RSE data deliverables. At a minimum, the Data Management Plan will address the following topics: (1) a description of the data management process, including

the data management team and management of new and existing data; (2) a description of the data management system, including databases, software and specification of acceptable electronic data deliverable ("EDD") format(s); and (3) a description of the management and administration of the data management system, including access, security and data backup. Note: currently, EPA requires the use of the Scribe software tool for sample data collection.

3.3 Project Management

The Respondent shall perform activities required to effectively manage the RSE. These activities include the following:

- Monitoring progress.
- Preparing and submitting weekly and monthly progress reports that document performance status, and technical progress.
- Participating in meetings and preparing and submitting meeting summaries.
- Accommodating any external audit or review mechanism that EPA requires.

4 RSE PROJECT ELEMENTS

4.1 Project Initiation

The Respondent shall perform project initiation and support as needed to obtain the Site characterization data required to support the determination whether a removal action is necessary, and if so, the site characterization data necessary to perform an Engineering Evaluation/Cost Analysis (EE/CA) to select a removal action that eliminates, reduces, or controls the excess risks to human health and the environment posed by the Site. Project initiation activities include the following:

- Existing Data and Data Gap Analysis - Review existing site related data and reports for perimeter and off-site sampling from all available sources and produce a summary report of all sampling conducted along the Site perimeter and off site with maps of sample locations, sample depths, analytical results, etc. to help assess if additional sampling may be warranted. The summary report should include, but is not limited to, all previous sampling conducted both on and off site by Respondent and the 2020 soil gas sampling and the 2022 soil sampling conducted by the City of Houston. Summary report should identify significant data gaps in existing site related data which should be used to develop the Field Sampling Plan
- Conceptual Site Model - Develop a comprehensive Conceptual Site Model (CSM) for environmental fate and transport of all contaminants previously investigated, including the RSE PCOCs, based on existing data. CSM should identify potential excess exposure scenarios, including vapor intrusion pathways, for all contaminants previously investigated, including the RSE PCOCs. At the conclusion of the RSE, update the CSM with data and information obtained during the RSE implementation.

- Analytical Database - Create a shared analytical database for use by stakeholders identified by EPA. The intent for the database is for government stakeholders to have immediate access to all data collected during the RSE implementation. EPA may utilize the analytical database to provide data to the community and public via an EPA owned website.

- Community Involvement/Outreach Proposal - Develop a proposal for supporting EPA's Community Involvement Plan which outlines specific support activities and participation for engaging and informing the community throughout the RSE and any subsequent CERCLA work performed by Respondent.

4.2 Site Access

Respondent will use best efforts to work with the landowners to obtain property access approvals within thirty (30) days of the Effective Date of the AOC.

4.3 Background Study

Respondent shall conduct a study to characterize background conditions in a manner consistent with CERCLA protocols. Respondent shall propose one or more background reference areas (BRA) based on similarity in soils, geology and geomorphic setting, upgradient and upwind orientation relative to the UPRR Houston Wood Preserving Works Site (source area) as determined by available topographical maps and regional meteorological data. Background reference areas may include areas exhibiting anthropogenic conditions created by activities such as residential activities.

Selection criteria for background samples are provided in the following EPA documents:

Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites (EPA 540-R-01-003 OSWER 9285.7-41 September 2002)

Frequently Asked Questions About the Development and Use of Background Concentrations at Superfund Sites: Part One, General Concepts (OLEM Directive 9200.2-141 A March 2018)

The area selected for background samples should be absent Site sources or other Site-related point sources of contamination being evaluated in the RSE with similar physical, chemical, geological, radiological, and biological characteristics to the potentially contaminated areas being evaluated.

Upon selection of potential background reference area(s) Respondent will collect and conduct analytical testing of surface soil samples for the established PCOCs. For the BRA, background threshold values ("BTVs") for each of the PCOCs shall be established. BTVs shall be calculated using the 95% upper tolerance limit (95 UTL) of the mean, maximums, or other appropriate statistical comparisons as directed by the primary contact. Confirmation of impacts in excess of background conditions may be based on a number of additional criteria including visual indications, historical information, CSM considerations (e.g., geographic, geomorphic and meteorological site characteristics), and/or analytical evidence reflected in the chemical data collected during the Field Investigations.

4.4 Field Investigation/Data Acquisition (FI)

The Respondent shall collect environmental data at the Site and nearby neighborhoods, for certain key pathways of potential exposure identified in the FI elements discussed below. Data acquisition begins with EPA's approval of the FSP. The FI will include the following elements:

- Mobilization/demobilization.

- Environmental sampling as follows:
  - *Onsite surface and sub surface soil sampling within the boundary of the UPRR Houston Wood Preserving Works site* -

    Conduct onsite surface and subsurface soil sampling for soil PCOCs. Onsite sampling is for attribution purposes and is not intended to define the nature and extent of potential onsite contamination and the frequency of samples may differ from off-site. Elevated levels of PCOC in surface samples will necessitate subsurface sampling in the same location to a depth of two (2) feet. Onsite sampling locations should exclude capped areas and areas where fill has been placed or previous remediation has occurred but include the area where the former surface impoundment was located on the western perimeter of the Site. Recent sampling by the City of Houston Health Department has shown adjacent offsite properties to have the highest dioxin concentrations.

  - *Offsite surface and subsurface soil sampling on offsite properties* – Conduct offsite sampling for soil PCOCs on properties to be identified in the FSP based on the updated CSM and data gap analysis. Respondent should prioritize offsite sampling and investigations as follows: areas with elevated levels of PCOCs in soils as reported in the City of Houston Health Department September 21, 2022, Soil Sampling Report; high access/frequent use areas within the community, such as schools, parks, churches etc.; locations or properties with sensitive populations such as residences with young children or day care centers; and other residential homes, businesses, etc.

  - *Special case soil sampling investigation-*

    In the event that a property with vegetable gardens or small livestock (i.e. poultry/goats) which provide a food source for the residents of an individual property has elevated concentrations of one or more PCOCs related to wood preserving operations in a surface soil sample, EPA may require additional specialized analysis of fruits, vegetables, eggs and/or milk from the livestock in the affected area for future risk evaluation.

  - For both onsite and offsite surface and subsurface soil sampling the following applies:

    - Surface soil sampling is defined as 0 – 2 inches below surface grade. Surface soil samples for offsite soil will be collected at a frequency that represents a 95% confidence level of the available surface area that is not covered by a hard surface. Laboratory analysis of soil samples to confirm the concentration of the PCOCs.
    - Subsurface soil investigation: borehole or similar sampling process logging (depth profiling) and laboratory analysis of subsurface soil (greater than 2 inches below surface grade) samples to a depth of 24" to be used for assessing potential

direct contact exposures to PCOCs.

- *Offsite soil gas and potential sub-slab or crawl space sampling* – Conduct soil gas sampling (and sub-slab or crawl space sampling, if its determined necessary based on soil gas results), on offsite properties to assess the levels of PCOCs possibly trapped within soil interstitial spaces and within soil gases beneath a building foundation or in crawl spaces that could travel through cracks, piping or other compromised sections of the foundation and into the building's atmosphere. Initially, the offsite soil gas sample properties will be selected based on the updated CSM and identified vapor intrusion (VI) pathways. The soil gas samples, and survey should include samples collected immediately outside property buildings ("exterior soil gas") at various depths or several depth intervals, and, as determined necessary based on prior sampling, immediately beneath it (e.g., sub-slab soil gas sampling). The goal is to locate the soil gas concentrations outside the building footprint that best represent conditions immediately below the building. Sub-slab or crawl space sampling locations, if needed, will be based on exceedances of EPA Regional Screening Levels for residential exposures in soil gas sampling results using the EPA Vapor Intrusion Screening Level (VISL) calculator.

- *Conduct offsite utility conduit corridor sampling and assessment in residential areas north of the Site that overlays the creosote/DNAPL contaminated plume to determine if a vapor intrusion potential exists from buried /underground utility lines*

- *Evaluation of the offsite storm sewer system impacts to drainage areas and connections to onsite storm sewers*- This RSE includes soil and surface water sampling for site PCOCs in offsite drainage areas (both current and historical) with potential to be impacted by storm sewer drainage from onsite. Areas to be included for offsite sampling are unlined surface drainage features, surface sheet flow drainage areas and any location (both current and historical) potentially impacted by discharges from onsite storm sewers, including any adjacent and down gradient from the UPRR Houston Wood Preserving Worksite. Surface water sampling should occur before, during and after a storm event to characterize water actively flowing in the drainage areas as well as water standing or pooled in drainage areas following a rain event. If exceedances occur in drainage areas impacted by flow from onsite storm sewers, additional upstream sampling should be conducted to identify storm sewer outlets impacting offsite locations and possibly receptors. Respondent should then evaluate the onsite and offsite storm sewer system to determine the nature and extent of contamination present and the potential for NAPL, contaminated sediment, and contaminated groundwater to infiltrate storm sewer system pipes and migrate off-site.

5 OFF-SITE LABORATORY ANALYSIS

5.1 Sample Analysis

The Respondent shall have analyzed, at a certified off-site laboratory, the soil samples collected during the RSE to determine concentrations of the PCOCs in soil in the FSP and QAPP. Specific sampling purposes include:

- Establishing site-specific background for PCOCs in soil
- Determination of PCOC concentrations across the RSE Study Area.

- Development of a Toxicity Equivalency (TEQ) using established Toxicity Equivalence Factors (TEFs) for polychlorinated benzo-p-dioxins and polychlorinated dibenzofurans from the PCOC sample analysis. Reference the following:

  EPA 2010. Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8- Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds. Risk

  Assessment Forum, U.S. Environmental Protection Agency, Washington, DC. EPA/100/R-10/005. December 2010.

Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow, as appropriate, "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures" (OSWER Directive No. 9360.4-01, April 1, 1990), as guidance for QA/QC and sampling. Respondent shall only use laboratories that have a documented Quality System that complies with ANSI/ASQC E-4 2004, "Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use" (American National Standard), and "EPA Requirements for Quality Management Plans (QA/R-2) (EPA/240/B-01/002, March 2001)," or equivalent documentation as determined by EPA. EPA may consider laboratories accredited under the National Environmental Laboratory Accreditation Program ("NELAP") as meeting the Quality System requirements.

5.2 Split Samples

Upon request from EPA, Respondent shall provide splits to EPA to be analyzed by EPA's laboratory for corroboration analysis. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondent to take split or duplicate samples of any samples it takes as part of its oversight of Respondent's implementation of the Work.

5.3 Laboratory Results

A copy of all laboratory results shall be provided to EPA within 5 days of Respondent's, or Respondent's consultants, receipt of such results. Laboratory results need not be validated for the initial submittal.

5.4 Analytical Data Validation

The Respondent shall request sample analyses and validate analytical results as specified in the FSP and QAPP. Activities include the following:

- Preparing and/or shipping environmental samples in accordance with the QAPP. The following types of environmental sampling shall be required:
  - Surface and subsurface soil sampling for off-site laboratory analysis of PCOCs.

- Developing data quality objectives ("DQO") for and in support of the FSP; the CSM will inform sampling designs and DQOs shall specify analytical acceptance criteria for future use of the data.

- Maintain and update SOPs for field survey and sampling procedures.

- Verification that off-site analytical services comply with EPA quality assurance requirements, and that the methods used are consistent with DQO and QAPP specifications.

- Providing sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.

- Performing data validation, the process by which the quality and usability of the data, the defensibility of the data, and the chain of custody are verified. Performing data validation in accordance with approved QAPP specifications.

5.5 Data Evaluation (DE)

The Respondent shall compile analytical and field data. Provide data in format that is compatible with EPA Regional or EPA National electronic data management network. Activities include the following:

- Data usability evaluation and field QA/QC.
- Data reduction and tabulation.
    - Analytical results from off-site laboratories.
    - Calculation and submittal of Toxicity Equivalence (TEQ) for polychlorinated benzo-p-dioxins and polychlorinated dibenzofurans from the PCOC sample analysis

6 RISK EVALUATION

The Respondent shall conduct a streamlined human health risk evaluation. The objective of the evaluation is to characterize and quantify, where appropriate, the current and potential human health and environmental risks for excess exposure to the PCOCs that would prevail if no further action were taken on the Site. Respondents shall prepare an Interim Risk Evaluation Report which establishes a proposed removal action level ("RAL"). RAL shall be developed using risk-based criteria and site-specific exposure parameters based on a land-use scenario that accounts for continued industrial use of the Site, and residential/commercial uses for offsite areas, following any potential removal activities. Preliminary remediation goals (PRGs) for wood treating process waste impacted soil shall be proposed on a range based on the target risk levels of $1x10^{-6}$ to 10^{-4} or a hazard quotient (HQ) of 1. The preferred toxicity values for dioxins and furans are based on the EPA IRIS values for non-cancer endpoints.

The RAL will be set based on the PRGs for wood treating process waste and will consider background levels and will be used to define areas that warrant a removal action within the Site. The Risk Evaluation must be done in accordance with applicable Agency guidance, directives and procedures specific to determining excess risks.

The Interim Risk Evaluation Report shall be submitted to EPA within 30 days of completing FI and receipt of all validated analytical data.

7 FINAL RSE REPORT

Respondent shall submit a Draft RSE Report within 30 calendar days following EPA approval of the Interim Risk Evaluation Report. Respondent shall submit the Final RSE Report within 30 calendar days after receipt of EPA comments on draft RSE Report. The Final RSE Report shall include all the data collected during the investigations, an estimate of the total volume of contaminated soil that can be visually, geographically, or geochemically linked to the off-site discharges from the historic wood treating processes as defined in Section 5.4 of this document.

Attachment 1 - Summary of Major Milestones for Removal Site Evaluation-

DELIVERABLE/MILESTONE	NO. OF COPIES	DUE DATE (calendar days)	EPA TARGET REVIEW PERIOD
Scoping meeting or work plan development conference call	--	Within 5 calendar days after the Effective Date of the AOC	--
RSE Work Plan including the Health and Safety Plan (HASP), Existing Data and Data Gap Analysis Summary Report, Comprehensive CSM	1EC	Within 30 calendar days of Effective Date of the AOC.	21 calendar days after receipt of work plan
Field Sampling Plan (FSP)	1EC	Within 14 calendar days after EPA approval of the RSE Work Plan	14 calendar days after receipt of FSP
Initiation of field investigation (FI)	--	Within 21 calendar days after EPA approval of the RSE Field Sampling Plan	--
Interim Risk Evaluation Report	1EC	Within 30 calendar days after completing FI and receipt of all validated analytical data	14 calendar days after receipt of Interim Risk Evaluation Report
Draft RSE Report	1EC	30 calendar days after EPA approval of Interim Risk Evaluation Report	30 calendar days after receipt
Final RSE Report	1EC	30 calendar days after receipt of EPA comments on draft RSE Report	14 calendar days after receipt

Attachment 2 - Regulations and Guidance Documents

The following list, although not comprehensive, consists of many of the regulations and guidance documents that apply in general to the RSE process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.
3. Superfund Community Involvement Handbook, U.S. EPA, Office of Superfund Remediation and Technology Innovation (OSRTI), March 2020, OLEM 9230.0-51
4. A Compendium of Superfund Field Operations Methods, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
5. Construction Quality Assurance for Hazardous Waste Land Disposal Facilities, U.S. EPA, Office of Solid Waste and Emergency Response, October 1986, OSWER Directive No. 9472.003.
6. Data Quality Objectives for Remedial Response Activities, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
7. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. EPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
8. Federal Acquisition Regulation, Washington, DC: U.S. Government Printing Office (revised periodically).
9. Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.
10. Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
11. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
12. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.
13. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).
14. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.
15. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.
16. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.
17. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.
18. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.
19. Quality in the Constructed Project: A Guideline for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.
20. Standard Operating Safety Guides, U.S. EPA, Office of Emergency and Remedial Response, November 1984.
21. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 1926, Occupational Health and Safety Administration.
22. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.
23. Superfund Response Action Contracts (Fact Sheet), May 1993, OSWER Publ. 9242.2-08FS.
24. TLVs-Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.
25. Value Engineering (Fact Sheet), U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9355.5-03FS, May 199

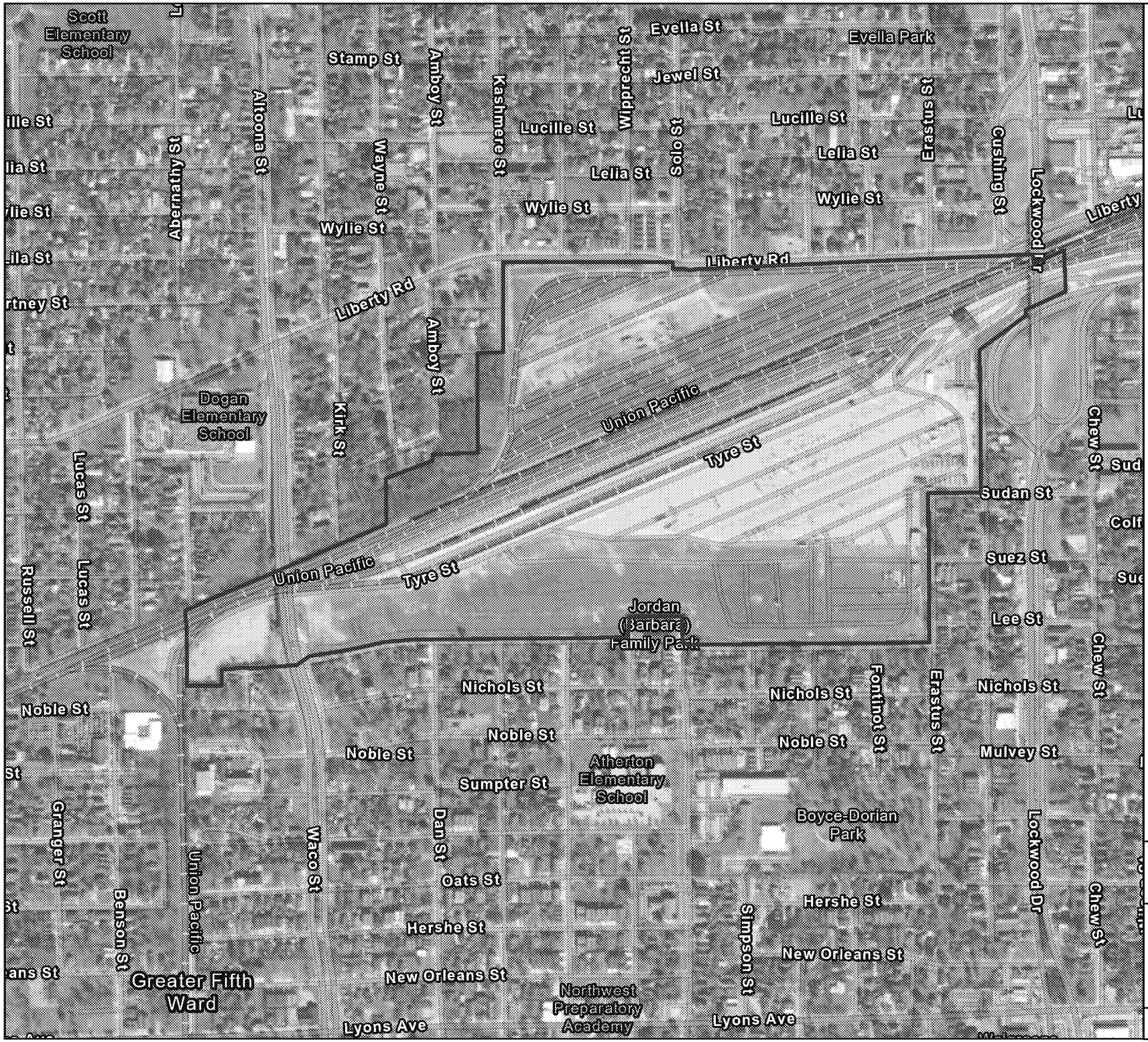

FIGURE 1
UPRR HWPW REMOVAL SITE EVALUATION MAP
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
JANUARY 2023	20600.012.001.1526	AS SHOWN

FILE: \\nasatxgis1\ATX_GIS_Data\EPA\Region 6 START IV\Superfund\RSE\Pro\RSE aprx 8:44 AM 1/10/2023 covasj